

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	10/812,134
Applicant	:	Rebecca Wright
Filing Date	:	March 29, 2004
Group Art Unit	:	1711
Examiner	:	Susan W. Berman
Docket No.	:	3086.EEM
Response Date	:	08 September 2007
Title	:	ULTRAVIOLET-CURING WATERBORNE COATING

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
Alexandria, VA 22313-1460

Sir:

I, JULIE DEWITT, hereby declare:

I am an inventor of the subject matter claimed in the subject application.

I have read and I understand the Office actions and references applied therein.

I understand that the Examiner has rejected the claims as either anticipated or obvious in view of patent WO 03/053728 and other cited references.

I requested viscosity and molecular weight analyses of the wetting agents sold under the tradenames Tego Rad and Tego Glide and am attaching the reports of those analyses to this Declaration. Included in the molecular weight report is an analysis of the silicone emulsion sold under the tradename Dow Corning 51, which is representative of the silicone emulsions used in my invention.

Referring to page 3, Figure 1, of the Gel Permeation Chromatography Report on molecular weight, it can be seen that the Mw of the Dow Corning 51 is 148,174, compared to molecular weights near 4000 for the Tego Glide and Tego Rad wetting agents. Referring to the Certificates of Analysis for the viscosities of Tego Glide and Tego Rad, and for Dow Corning 51, it can be seen that the viscosity for the Dow Corning 51 is in the range of 200,000 to 700,000 mPa.s; for the Tego Glide the viscosity is in the range of 150-400 mPa.s; and for the Tego Rad the viscosity is in the range of 350 to 900 mPa.s. One mPa.s is equivalent to one cps.

These are significant differences in viscosity and molecular weight, and these differences distinguish my invention from that disclosed in WO 03/053728. Moreover, these differences contribute to the properties of noise resistance, abrasion resistance, and ice release in my invention.

I further declare that all statements made herein based on individual knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willfully false statements and the like so made are punishable by a fine or imprisonment or both under 1001 of Title 18 of the United States Code and such willfully false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 06 September 2007

A handwritten signature in cursive script, reading "Julie DeWitt", written in black ink.

Julie DeWitt

LQCA - BP000554

DOW CORNING CORPORATION CENTRAL DISTRIBUTION WAREHOUSE CEDAR GROVE BUSINESS PARK 270 OMEGA PARKWAY, Suite 200 SHEPHERDSVILLE KY 40165 Telephone: (800) 248-3481 Fax: (909) 496-6974		Certificate of Analysis		Page 1 of 2
		Fax(Ship-In: 1032294) 517-372-0511		Date Generated 03 Aug 2007
Ship-to: 1032294 Quality Assurance Department ASHLAND DIST (LANSING) COMPANY DIV ASHLAND INC 2011 TURNER STREET LANSING MI 48906-4054		Delivery Number 8504726035	Item Number 000030	Delivery Date 07 Aug 2007
		Sales Order Number 3979333	Item Number 000030	Sales Order Date 25 Jul 2007
		Purchase Order Number 4500252938		PO Date 25 Jul 2007
		Our Material 4021509 DOW CORNING(R) 51 ADDITIVE, 175 KG (386 LB) drum		
		Customer Material 00000000000052815		
		Batch 0004913834	Shelf Life Expiration Date 14 Jan 2009	
		Delivery Quantity 9.0 drum	Date of Manufacture 24 Jul 2007	
Characteristic	Value	Unit of Measure	Lower Limit	Upper Limit
VISCOSITY	654000	cP	200000	700000
NONVOLATILE CONTENT 2G/1H/150C	80.3	%	77.0	82.0
<p>ACHESON PO: 99919 CODE: 1904627</p> <p>DLVY DATE: 14 AUG 2007 QTY: 4 DRUMS</p>				
<p>This is to certify that the above designated material has been tested and did comply with the listed specifications (with listed exceptions) when supplied in original container. The material is subject to the conditions listed on the Dow Corning invoice. The above is a copy of information on file. The test acceptance data are available for examination. This certificate is valid unsigned.</p>				
<p style="text-align: right;">A-HW: Talce</p>				

Internal reference: 1925193

*** TOTAL PAGE 01 ***
TOTAL P. 01

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27. Jul. 2007

Goldschmidt Chemical Corp.

914 East Randolph Road · Hopewell, VA 23860

Ship-to**Certificate of Analysis 2.2 EN 10204****Please reference**

Delivery

Order

Customer

Your Reference

Our Reference ST-990131/6908-D-800/ QN

Batch **ES37220983**

Batch: ES37220983
Material: TEGO RAD 2200 N Qty. shipped: 0.000

Parameter	Method	Limits	Value	Unit
Viscosity 25°C	GM_0103_01	350 - 900	458	mPa.s
Solid content	GM_0090_10	>= 97.0	100.0	%
Refractive index / 25°C	GM_0120_01	1.4390 - 1.4450	1.4420	

Our Specific test reports do not relieve you from the obligation to test the goods for your own intents and purposes.

This print-out is valid unsigned.

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Page: 1 / 1
27. Jul. 2007**Goldschmidt Chemical Corp.**
914 East Randolph Road · Hopewell, VA 23880

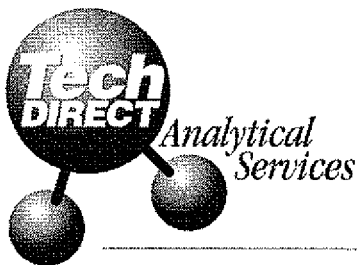
Ship-to**Certificate of Analysis 2.3 EN 10204****Please reference**Delivery
Order
Customer
Your Reference
Our Reference **ST-940324/6113-D-500/ QN**
Batch **ES57108223****Batch: ES57108223**
Material: TEGO GLIDE 450 Qty. shipped: 0.000

Parameter	Method	Limits	Value	Unit
Solid content	GM_0090_24	> = 93.0	96.9	%
Colour to Gardner	GM_0140_02	< = 2	<1	
Refractive index / 25°C	GM_0120_01	1.4360 - 1.4400	1.4396	
Density / 25°C	GM_0110_01	1.010 - 1.040	1.024	g/ml
Viscosity / 25°C	GM_0100_01	150 - 400	188	mPa.s

Our Specific test reports do not relieve you from the obligation to test the goods for your own intents and purposes.

This print-out is valid unsigned.

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Gel Permeation Chromatography

Author/Analyst: Lynn Bender

Date: 8-15-07

Analyst: Mark Razzante

To: Julie DeWitt
Acheson Colloids Company

Log #: 0702148-50

cc: File

P. O. #: 99815

Subject: Tego Glide 450, Tego Rad 2200N and Dow #51

Objective: Determine the Molecular Weight Distribution (MWD) of the samples and compare the distributions.

Results Summary:

Fig. 1 is an overlay of the MWDs of the three samples. The distribution of the Dow #51 is tri-modal. An old retain of the Dow #51 was also analyzed, and the distribution was essentially the same as this current lot (**Fig. 2**).

The GPC software can determine the relative % integration areas of the peaks in a distribution, in order to compare the relative % of material at a particular MW. **Figs. 3 & 4**, samples Dow #51 & Tego Rad, respectively, show how the chromatograms are integrated/segmented to provide the % areas. (*MP is the MW at the apex of a peak.*)

The table below gives the values of the relative % integration areas.

Sample	MP / %Area	MP / %Area	MP / %Area
Dow #51	438,602da / 23.29%	26,286da / 22.80%	917da / 53.91%
Tego Glide 450	---	4,014da / 68.68%	1,316da / 31.32%
Tego Rad 2200N	38,593da / 0.88%	4,353da / 82.13%	1,377da / 16.99%



The Tego Rad 2200N has a small high MW hump which was reproducible and therefore real. This added high MW results in a higher Mw compared to the Tego Glide.

Experimental Method:

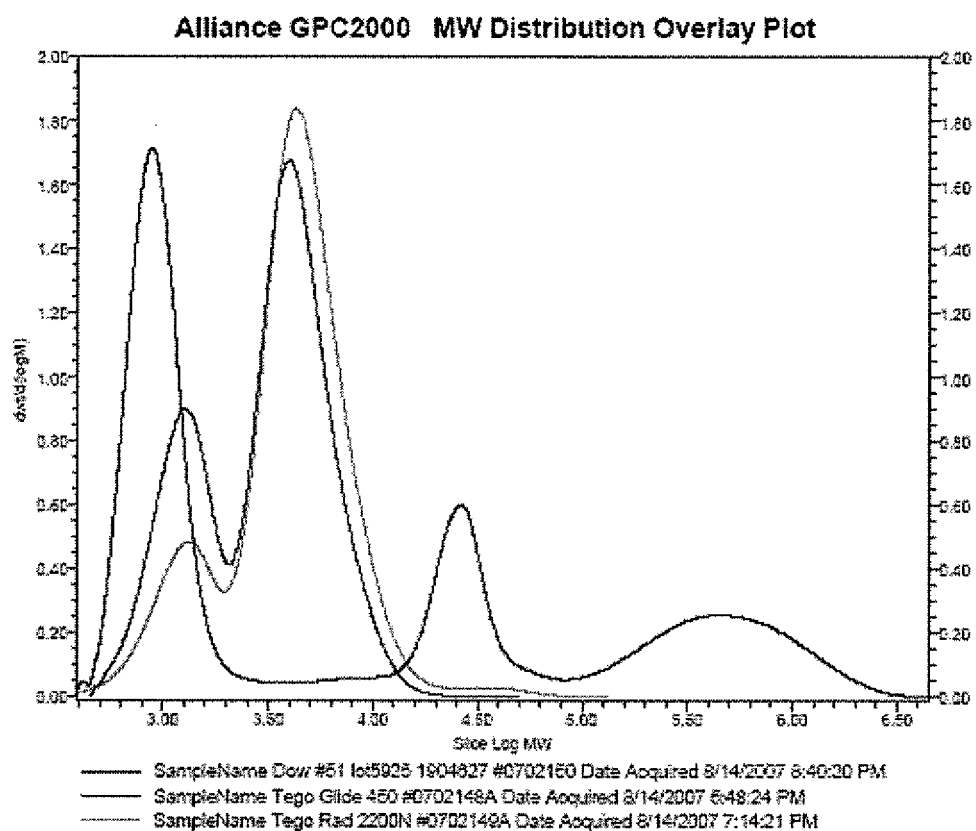
Instrument: Waters Alliance GPC2000: 1ml/min THF @45°C/RI & Viscometer detectors

Column Set: Polymer Labs columns: guard + 2 mixed bed C's & 100A

Calibration: PS standards from 2.4×10^6 to 266 daltons

Note: Based on analytical and test methods conventionally used in the coatings industry, as indicated above, these results are accurate to the best of our knowledge. However, ICI Paints does not guarantee nor warrant the data or interpretations included in this report.

Current Date 8/15/2007

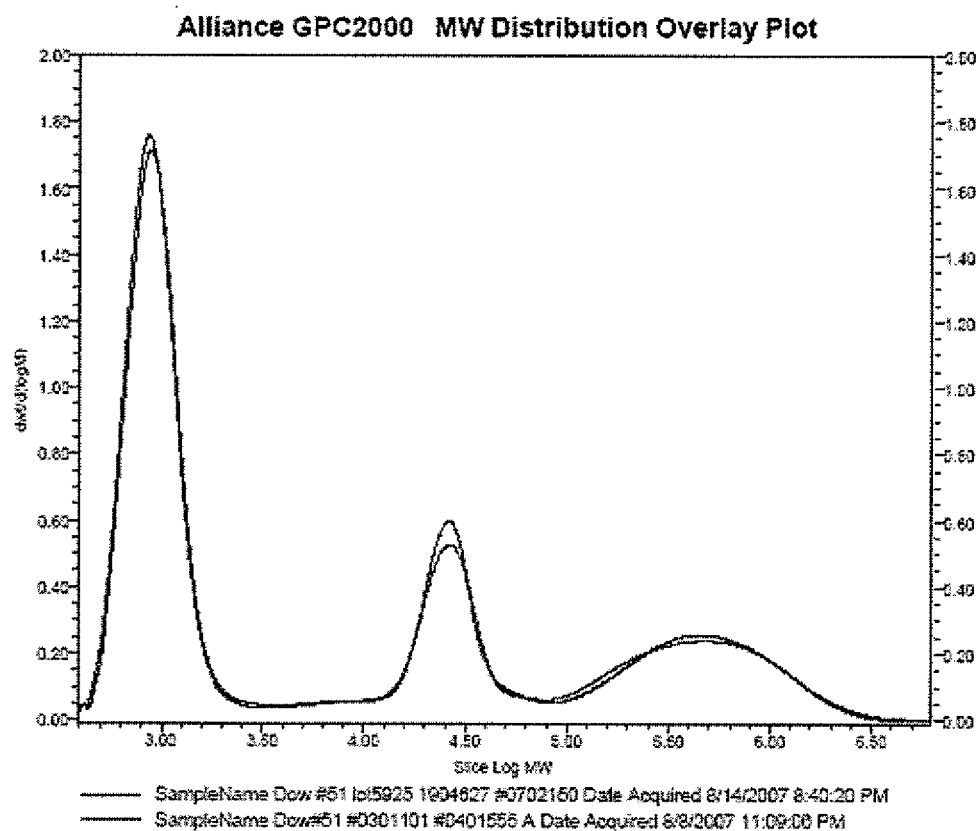


GPC Results

	SampleName	Vial	Mn	Mw	MP	Polydispersity
1	Dow #51 lot5925 1904627 #0702150	7	1537	146114	917	93.997752
2	Tego Glide 450 #0702148A	3	2241	3590	4014	1.849295
3	Tego Rad 2200N #0702148A	5	2927	4949	4352	1.890559

Figure 1

Current Date 8/15/2007



GPC Results

	SampleName	Vial	Mn	Mw	MP	Polydispersity
1	Dow #51 lot5925 1004627 #0702150	7	1591	148114	917	89.897762
2	Dow#51 #0301101 #0401555 A	20	1539	155493	896	101.935825

Figure 2

GLIDDEN/ICI PAINTS GPC Analysis Report

SampleName Dow #51 lot5925 1904627

Date Acquired 8/14/2007 8:40:20 PM

#0702150

Project Name THF_newSYS_Aug_2007

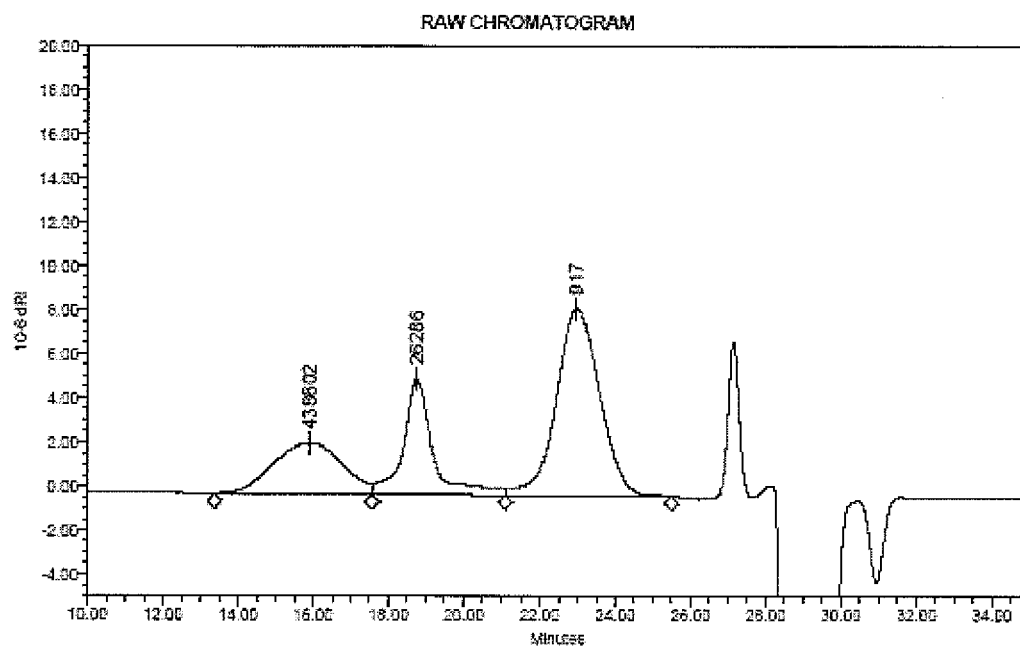
Vial 7

Processing Method THF_25_1_27_4_August_2007

Injection 1

Date Processed 8/16/2007 9:05:17 AM

Run Time:40.00 Minutes



Relative % Integration Areas

MP	%Area
438,602	23.29%
26,286	22.80%
917	53.91%

Figure 3

GLIDDEN/ICI PAINTS GPC Analysis Report

SampleName Tego Rad 2200N #0702149A

Date Acquired 8/14/2007 7:14:21 PM

Vial 5

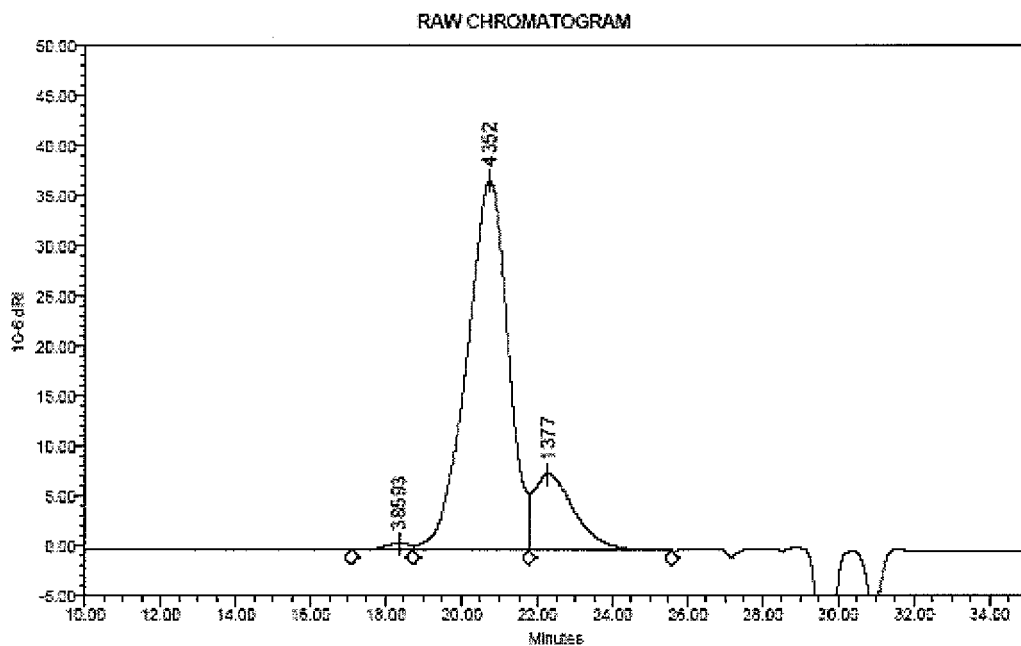
Project Name THF_newSYS_Aug_2007

Injection 1

Processing Method THF_25_1_27_4_August_2007

Run Time 40.00 Minutes

Date Processed 8/15/2007 9:27:10 AM



Relative % Integration Areas

MP	%Area
38,593	0.88%
4,352	82.13%
1,377	16.99%

Figure 4